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ABSTRACT

The Information Exchange Procedures (IEP) developed by the National Center for Higher Education Management Systems (NCHEMS) are a set of standard definitions and procedures for collecting information about disciplines and student degree programs, outcomes of instructional programs, and general institutional characteristics. A fundamental purpose of IEP is to assist postsecondary education institutions in establishing a basic set of data useful for the improvement of education planning and management. This purpose is pursued through IEP in two ways: (1) by helping the institution to create its own internally useful data set and (2) by fostering the creation and exchange of comparable data sets among similar institutions. The IEP basic data set now consists of information of each of the following types: (1) institutional characteristics; (2) student enrollments and characteristics; (3) personnel resources; (4) other resources; (5) institutional finances; (6) costs by instructional discipline and student program; and (7) student outcomes. This document is directed toward the definition and discussion of IEP student outcomes information and procedures for obtaining them. It also presents the procedures for creating the data set necessary to support further developments, provides a descriptive overview of the outcomes of student programs, and allows the institution in the context of IEP to undertake examination of the activities, costs, and results of those programs. (Author/KE)

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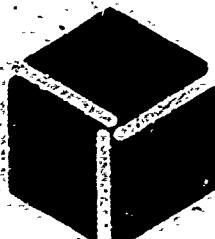
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Technical Report 66

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- to increase educational opportunities for westerners.
- to expand the supply of specialized manpower in the West.
- to help universities and colleges improve both their programs and their management.
- to inform the public about the needs of higher education.

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To design, develop, and encourage the implementation of management information systems and data bases including common data elements in institutions and agencies of higher education that will:

- provide improved information to higher education administration at all levels.
- facilitate exchange of comparable data among institutions.
- facilitate reporting of comparable information at the state and national levels.

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INFORMATION EXCHANGE PROCEDURES

OUTCOMES STUDY PROCEDURES

Technical Report No. 66

Maureen Byers

February 1975

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PREFACE

The Information Exchange Procedures (IEP) developed by the National Center for Higher Education Management Systems (NCHEMS) are a set of standard definitions and procedures for collecting information about disciplines and student degree programs, outcomes of instructional programs, and general institutional characteristics. These definitions and procedures have been developed to facilitate exchange of information among institutions of post-secondary education, providing institutions with some assurance that data they exchange are useful for purposes of comparison.

The procedures and definitions recommended in this manual and other manuals about IEP are "targets" for institutions. While it is anticipated that most institutions will be able to follow these recommendations, some institutions may not have available the required information and others may be able to provide it only at an unreasonable cost. Others may find that only after several years of using IEP can data be developed that accurately reflect the characteristics of the institutions. For some institutions the definitions and procedures may be too complex; others may find them too simplistic. Any effort at exchange of data among institutions involves some compromise in an attempt to accommodate the wide variations among institutions. Consequently, while comparable information for exchange is the goal of IEP, NCHEMS cannot guarantee absolute comparability of data as the final result of IEP. But, hopefully, implementation of IEP will represent reasonable progress toward that goal.

The Information Exchange Procedures initially were developed by the NCHEMS staff with guidance from a task force and steering committee, composed of institutional and state agency representatives. The cost procedures were tested during 1972-73 by a group of about 60 community colleges, private colleges, and state colleges and universities. The full set of exchange procedures was tested during 1973-74 in about the same number and kinds of institutions. Insights gained from these pilot tests served to refine the full range of procedures and definitions:

The Information Exchange Procedures described in this manual, and in others listed below, have been reviewed and approved by the IEP advisory groups and the NCHEMS Board of Directors, and are being released at this time for wide-scale implementation. While IEP is intended to be a final product, widespread implementation may point to additional information needs of institutions that can be addressed in updates to this manual if necessary. However, NCHEMS feels that IEP is sufficiently refined at this time that it can be released to the full NCHEMS general distribution mailing list and to other institutions interested in implementing IEP.

This publication is one of four implementation manuals for IEP:

Information Exchange Procedures Activity Structure, Technical Report No. 63, specifies the structure to be used in collecting institutional data, including detailed examples of an account crossover. This structure is based on the NCHEMS Program Classification Structure, Technical Report No. 27, as modified in late 1974.

Information Exchange Procedures Data Formats and Definitions, Technical Report No. 64, contains the formats recommended for collection and display of the IEP data set. This document also includes a complete glossary of IEP terminology and definitions.

Information Exchange Procedures Cost Study Procedures, Technical Report No. 65, contains the procedures for implementing the cost study portion of IEP with specific references to the NCHEMS Costing and Data Management System. The costing procedures specified in this document are based on those developed in the Cost Finding Principles project.

Information Exchange Procedures Outcomes Study Procedures, Technical Report No. 66, contains the procedures for implementing the outcomes study portion of IEP. The outcomes measures and procedures specified in this document are based on those developed in the Outcomes of Post-secondary Education project at NCHEMS.

These documents replace the following documents:

Information Exchange Procedures Manual (Field Review Edition), A

Synopsis, Technical Report No. 46

Information Exchange Procedures Manual (Field Review Edition), Technical Report No. 47

Information Exchange Procedures Cost Study Implementation Guide (Preliminary Edition), Technical Report No. 52

The software system designed to support the Information Exchange Procedures is documented separately. Readers concerned with the NCHEMS Costing and Data Management System should refer to the following documents:

An Introduction to the NCHEMS Costing and Data Management System

Technical Report No. 55

NCHEMS Costing and Data Management System--Sample Reports, Technical Report No. 56

Account Crossover Module Reference Manual, Technical Report No. 57

Faculty Activity Module Reference Manual, Technical Report No. 58

Personnel Data Module Reference Manual, Technical Report No. 59

Student Data Module Reference Manual, Technical Report No. 60

Student Outcomes Module Reference Manual, Technical Report No. 61

Data Management Module Reference Manual, Technical Report No. 62

Other NCHEMS documents that will be useful in conjunction with this manual are:

An Introduction to the Identification and Uses of Higher Education

Outcome Information, Technical Report No. 40

The Higher Education Outcome Measures Identification Study: A

Descriptive Summary

Outcome Measures and Procedures Manual: Volume I (Field Review

Edition), Technical Report No. 70

ACKNOWLEDGMENTS

The development of this document and the Student Outcomes Questionnaire for Program Completers has been influenced by the advice and experience of many. I appreciate the efforts of those 1974 IEP pilot test institutions, named in Appendix B, that devoted particular attention to the pilot testing of an earlier form of the student questionnaire. I also thank Richard Harpel, Assistant Vice-Chancellor for Academic Affairs at the University of Colorado, and members of his staff who provided reactions to a draft of the present questionnaire. Thanks also to Grant Duncan, WICHE's graphic artist, who helped greatly in the design and production of a polished questionnaire.

As is usually the case with NCHEMS documents, several NCHEMS staff members contributed very substantially to this one. My special appreciation goes to Cathleen Bower, Mike Haight, Anahid Katchian, Oscar Lenning, Ron Martin, Sid Micek, Delma Oberbeck, Al Service, and Jim Topping. Thank you all.

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INTRODUCTION

A fundamental purpose of the NCHEMS Information Exchange Procedures (IEP) is to assist postsecondary education institutions in establishing a basic set of data useful for the improvement of educational planning and management. This purpose is pursued through IEP in two ways: (1) by helping the institution to create its own internally useful data set and (2) by fostering the creation and exchange of comparable data sets among similar institutions--the simple premise being that institutions as well as individuals may learn from each other.

One of the initial objectives of IEP was to establish a methodology for developing and exchanging information on educational costs, and thus a substantial portion of IEP documentation has addressed the issues and procedures associated with cost calculation. An additional objective was the development of a broader data set, one composed of more than cost information alone. This development was subject to two general guidelines:

- The information included in IEP should help users to understand better the activities and programs of the institution.
- The information included in IEP should encourage institutions to perform analyses that will help them in the evaluation and improvement of their programs.

The resulting IEP basic data set now consists of information of each of the following types:

- Institutional characteristics
- Student enrollments and characteristics
- Personnel resources
- Other resources
- Institutional finances
- Costs by instructional discipline and student program
- Student outcomes

This manual is directed toward the definition and discussion of IEP student outcomes information and procedures for obtaining it.

Objectives of the IEP Outcomes Study

The IEP Outcomes Study has three broad objectives:

1. To advance the state of the art in institutional planning and management by providing a more fully developed set of standard student outcomes measures than has previously been available to a large number of diverse institutions.
2. To assist institutions in the description of student program outcomes by providing definitions of outcome measures and standard procedures for obtaining the necessary information.
3. To present the information in such a way that institutions are encouraged to undertake analyses and comparisons of instructional program results and examine relationships to other program descriptors and activities.

The ultimate objective, of course, is the actual use of outcomes information--in both a descriptive and a comparative mode--as an essential element in program planning and management. That objective requires the further development, by

NCHEMS and others, of analytical approaches to outcomes data and specific suggested uses of outcomes information in institutional problem solving.

(Some of the possibilities for this kind of development are discussed briefly in Section III.) This document presents the procedures for creating the data set necessary to support those further developments. More importantly for the present, it provides a descriptive overview of the outcomes of student programs and allows the institution, in the context of IEP, to undertake examination of the activities, costs, and results of those programs.

II

OUTCOMES MEASURES AND PROCEDURES

The IEP Outcomes Measures

The IEP Outcomes Study focuses on the results of student programs, and in this respect it differs from some (but not all) of the other components of IEP.

The institution's instructional resources, for example, usually are associated with a particular discipline or perhaps a multidisciplinary department. The outcome measures in this document, on the other hand, are associated with the curriculum or course of study followed by the student--that is, the student program.

Most of the measures included here were derived from or influenced by the Outcomes of Postsecondary Education Project at NCHEMS. This project is an ongoing and substantial effort of the Center aimed at the identification and measurement of the outcomes of postsecondary institutions and programs, and at promulgation of the use of outcomes information in educational planning and management.

(The Outcomes project activities that contributed in a major way to this document are described briefly in Appendix A.) The content of this manual thus has a firm base in the broader and more intensive work that continues in the Outcomes project. Nonetheless, one must be careful not to overlook the limited nature of the outcomes measurement capability represented by the current procedures.

First, it should be noted that the outcomes measures included here relate only to student growth and development. (That is, there are no measures of research or public service outcomes.) This is consistent with the remainder of IEP at this time, in which major (but not exclusive) attention is devoted to the institution's instructional activities and their components. In addition, these student growth measures permit the institution to examine student program outcomes that are more than simple measures of productivity (such as student credit hours). Thirty such student growth measures were given very high priority in the Outcome Measures Identification Study (see Appendix A), and these served as the initial set for possible inclusion in IEP.

Feasibility criteria caused further limitation of the IEP outcomes data set. One measure on the high priority list, for example, was "Student scores on tests that indicate their ability to read, write, speak, and listen." The inclusion of this measure in IEP would require first the development of tests of communication skills or the adoption of one or more existing tests. It would require also that institutions participating in IEP be willing to accept such tests and administer them to their students. This was regarded by the IEP staff and advisory bodies as an unacceptable requirement for institutional participants.

After feasibility constraints were applied, there remained a set of outcome measures that received high ratings in the Outcome Measures Identification Study and that allowed reasonable ease of collection. These comprise the IEP outcome measures:

1. The number of program completers for the previous year, by type of certificate or degree awarded and field of study.
2. The number of students who left the institution in the previous year prior to program completion, by type of certificate or degree sought and by their status at exit.
3. The time elapsed between entering the institution and program completion.
4. Whether the student transferred credits from another institution.
5. The number of terms spent in completing the program, full-time and part-time.
6. The cumulative grade-point average of program completers.
7. The number of program completers seeking a full-time job.
8. The number of program completers securing a full-time job and
 - a. the type of job.
 - b. the perceived permanence and career potential of the job.
 - c. the starting salary or wage.
 - d. the relation of the job to the field of study.
9. The long-run career expectations of program completers.
10. The number of program completers applying for admission to another degree program and
 - a. the type of degree sought and field of study.
 - b. the number of applicants who have been admitted.
11. The long-run educational intentions of program completers with respect to type of degree and field of study.

- 12: Program completers' perceptions of the institution's contribution to their progress, and the importance of that progress, in six areas of potential growth:
- a. Intellectual growth
 - b. Social growth
 - c. Aesthetic and cultural growth
 - d. Educational growth
 - e. Vocational and professional growth.

The Student Outcomes Questionnaire for Program Completers

Early in the development of outcomes procedures for IEP, it became clear that most of the important measures could be obtained readily--and perhaps most reliably--through a student survey. The decision was made therefore to develop a standard questionnaire, printed by NCHEMS and made available to IEP participating institutions, for administration to program completers. (This questionnaire appears on the inside back cover of this document. A brief summary of its development and instructions for obtaining copies are in Appendix B.)

Two factors were of primary importance in reaching this decision. (1) A single standard questionnaire would enhance comparability of information across programs and institutions, whereas even minor variations in wording or in the order of items from one institution to another would diminish comparability. (2) A single standard questionnaire allows NCHEMS to provide computer software, as part of the NCHEMS Costing and Data Management System, that will edit questionnaire responses

and perform the calculations necessary to complete the IEP data formats. The resulting machine-readable record of the questionnaire data also will facilitate later analyses. This kind of assistance for participating institutions was a major consideration.

The decision to provide a standard student outcomes questionnaire is not meant to discourage institutions from adding items. In fact, it is anticipated that many institutions will want to ask questions unique to their programs or activities--questions that cannot be accommodated in a general questionnaire of this sort. Others may want to explore in greater depth some of the variables that are already included. Many of these ideas are under investigation in the NCHEMS Outcomes project, and interested institutions are encouraged to contact the NCHEMS staff working on the Outcomes project, either to request documentation of project developments or to share the institution's experience with additional outcome measures.

Implementation of IEP Outcomes Study Procedures

The procedures for the IEP outcomes study fall naturally into two categories: those that rely on institutional records and those that rely on the student outcomes questionnaire for program completers.

Institutional Record-Based Information is summarized in Format F.1, Student Outcomes Information: Program Enrollments and Completions. This format shows the first two outcome measures listed earlier: (1) the number of program completers

and (2) the number of exiting students (noncompleters) by their status at exit.

Although it is not an outcome measure, headcount enrollment is presented also for purposes of comparison. The instructions and definitions for Format E.1 are given on the facing page. Although collection of this portion of the IEP outcomes data is essentially straightforward, a few points need to be stressed. These are illustrated through the use of sample data in the formats in Appendix C.

1. It is intended that an entry be made for the total institution, followed by a separate entry for each student program, identified by the relevant code from the HEGIS Taxonomy.
2. Many institutions will have a substantial number of students enrolled, particularly at the lower-division level, who have not yet declared a student major. These students should be listed separately as "undeclared."
3. Each entry should be disaggregated by type of degree or certificate. For headcount enrollments and exiting students (noncompleters), this will be the degree or certificate toward which the student is (or was) working. For program completers, this will be the degree or certificate actually awarded.
4. The institution should use its own discretion in deciding whether it is useful to provide an additional breakdown within the IEP standard degree types. (For some purposes, for example, the institution may wish to separate Associate of Arts degrees from Associate of Science and Associate of Applied Science degrees.)
5. It is expected that in many institutions some student programs will have very few enrollments. In these cases it may be useful to group the data in categories that are of interest--perhaps by college divisions

STUDENT OUTCOMES INFORMATION:
PROGRAM ENROLLMENTS AND COMPLETIONS

Student Program Code	Name	Degree Type	Headcount Enrollment (Fall Term)	Program Completers (Fiscal Year)	Exiting Students (Noncompleters)			
					Total	In Good Standing	Acad. Drop/ Suspension	Other Drop/ Suspension

F.1

INSTRUCTIONS AND DEFINITIONS (F.1)

General: This format shows enrollment and completion data for the total institution and for each separately identifiable student (major) program within the institution.

Student Program refers to the course of study followed by a student. In IEP, the HEGIS Taxonomy is used as the reference for naming and coding student programs. The taxonomy is found in Information Exchange Procedures Activity Structure, NCHEMS Technical Report No. 63 (Myers and Topping, 1975).

Headcount Fall Enrollment is an unduplicated count of the number of students enrolled in each student program as of the institution's fall term census date. Enrollment figures are presented separately for each student program and degree type.

Program Completers (Fiscal Year) are those students who have met all institutional and course of study requirements for eligibility to be awarded a degree, diploma, or certificate by the institution. This definition includes all students who have received such awards during the fiscal year for which IEP data are being compiled. For some institutions, it may include also students who have met eligibility requirements but who have not completed the necessary administrative procedures to receive the award. Program completers are shown separately for each type of degree, diploma, or certificate awarded in the particular program.

Type of Degree, Diploma, or Certificate: The following are standard award categories for use in IEP.

Certificates and Diplomas (less than one year): An award for completion of any program covering a time span less than one academic year.

Certificates and Diplomas (equal to or more than one year): An award for completion of any program covering a time span between one academic year and two academic years.

Associate Degree (two years or more): The degree granted upon completion of an educational program less than baccalaureate level and requiring at least two but fewer than four academic years of college work.

Bachelor's Degree: Any earned academic degree carrying the title of Bachelor.

First Professional Degree: The first earned degree in a professional field. For the purposes of IEP, only the following degrees should be included: M.D.; D.O.; LL.B. or J.D. (if J.D. is the first professional degree); D.D.S.; D.V.M.; O.D.; B.D.; M.Div. or Rabbi; Pod.D. or P.M.

Master's Degree: Any earned academic degree carrying the title of Master. In some professional fields, this is an advanced professional degree beyond the first professional which carries master's designation, such as L.L.M., M.S. (Master of Surgery).

Doctoral Degree: An earned academic degree carrying the title of Doctor. Not to be included are first professional degrees such as M.D. and D.D.S.

Not Elsewhere Designated: Includes all other categories of awards.

Exiting Students are those individuals: (1) who were enrolled in the institution as of the fall term census date for the previous year, (2) who were not enrolled as of the fall term census date for the current year, and (3) who did not complete their program in the interim. Exiting students are shown separately by student program and degree type and by student status at exit.

Student Status at Exit is of three types:

In Good Standing: The student left the institution voluntarily and is eligible for readmission.

Academic Drop or Suspension: The student was required to leave the institution for unsatisfactory academic performance.

Other Drop or Suspension: The student was required to leave the institution for some reason other than unsatisfactory academic performance (e.g., disciplinary suspension, failure to pay fees).

Data Source: Registrar.

or other organizational units.. Note, however, that these aggregated entries should be in addition to--not in place of--the discrete program entries. Note also that the aggregations used, if any, should be consistent with those in the cost study portions of IEP.

6. Finally, for exiting students (noncompleters) it may be difficult to extract data on the student's status at exit or the student's program and/or degree type. The institution is urged, nonetheless, to secure as much of this information as possible, even if only totals can be given.

Student Questionnaire Information is summarized in Format F.2, Student Outcomes Information: Outcomes ~~Questionnaire~~ for Program Completers. Again, instructions and definitions for completing the format are given on the facing page. The necessary information for Format F.2 is generated from questionnaire responses by the NCHEMS computer software for editing and reporting the questionnaire data (see the Student Outcomes Module Reference Manual, Technical Report No. 61). Two aspects of the procedures for producing this questionnaire information are discussed here: questionnaire administration and questionnaire data processing.

A. Questionnaire Administration: The following are recommended procedures for administering the student outcomes questionnaire.

1: Timing

- The questionnaire should be administered at the end of each term in which degrees and certificates are awarded. If the institution is limited to a one-time administration for the year, it should choose the term in which the largest number of awards usually is made.

STUDENT OUTCOMES INFORMATION
OUTCOMES QUESTIONNAIRE FOR PROGRAM COMPLETERS
-Program Information Summary-

Program Name _____	Degree Type _____	Program Code _____	Questionnaire Administration Date _____
Number of Program Completers _____ Number of Questionnaires Distributed _____ Number of Respondents _____	<u>Civil Rights Category</u> <ul style="list-style-type: none"> American Indian or Alaska Native _____ Asian or Pacific Islander _____ Black/Negro _____ Hispanic _____ White, Other Than Hispanic _____ Not Indicated _____ 		
Men _____ Women _____ Not Indicated _____	<u>II. Occupational Plans and Activities</u> <ul style="list-style-type: none"> Number Not Intending to Seek Job _____ Number Intending to Seek Job in Next 6 Months _____ Number Now Seeking Job _____ Number Who Have Secured Job _____ Median Annual Salary (N* =) _____ \$ _____ 		
<u>I. Program Completion Measures</u> <ul style="list-style-type: none"> Number of Transfers (N* =) _____ Median Months to Program Completion (N* =) _____ Median Terms Enrolled (N* =) _____ Full-Time _____ Part-Time _____ Median Cumulative G.P.A. (N* =) _____ 	Job Considered: Temporary _____ Possible Career Potential _____ Definite Career Potential _____ Other _____ Not Indicated _____		

*Wherever it is used in this summary, N indicates the number of individuals who responded to that particular item on the questionnaire.

STUDENT OUTCOMES INFORMATION:
OUTCOMES QUESTIONNAIRE FOR PROGRAM COMPLETERS
 -Program Information Summary-
 (Continued)

III. Educational Plans and Activities

Number Not Intending to Apply Within One Year for a Further Degree	_____
Number Intending to Apply Within One Year	_____
Number Who Have Already Applied	_____
Number Who Have Been Admitted	_____
Number Awaiting Decision	_____
Not Indicated	_____

Highest Degree Aspirations

Certificate	_____
Diploma	_____
Associate Degree	_____
Bachelor's Degree	_____
Master's Degree	_____
Professional Degree	_____
Doctorate	_____
Other	_____
Undecided	_____
Not Indicated	_____

IV. Student Perceptions of Growth

Student perceptions of the institution's contribution to progress and the importance of that progress in six areas of potential growth.

Growth Area	Institution's Contribution to Progress			Importance of That Progress		
	None	Little	Moderate	Much	Very Much	Mean*
A. Intellectual						
B. Social						
C. Aesthetic/Cultural						
D. Educational						
E. Vocational/Professional						
F. Personal						

*The mean for each growth area is based on values of 1, 2, 3, 4, and 5 assigned to the responses "None," "Little," "Moderate," "Much," and "Very Much," respectively.

INSTRUCTIONS AND DEFINITIONS (F.2)

General: This format shows student outcomes information for the total institution and for each separately identifiable student (major) program within the institution by degree type. This information is derived from the Student Outcomes Questionnaire for Program Completers. It is intended that the questionnaire be administered to all program completers (as defined on the page facing Format F.1) in each term in which degrees are awarded. If the institution chooses to administer the questionnaire only once during the year, it is recommended that the term selected be the one in which the largest number of program completions usually occurs (probably the spring term). Most of the information contained in this format is self-explanatory or is readily understood by reference to the questionnaire itself. The following definitions are presented here for convenience and clarification.

Program Name, Degree Type, and Program Code are described on the page facing Format F.1.

Number of Program Completers is given for all terms covered by this information summary.

Questionnaire Administration Date should include the month and year for each administration of the questionnaire covered by this information summary.

Civil Rights Category definitions appear on the page facing Format B.1 of Technical Report No. 64 and in Appendix B of this document.

Program Completion Measures are taken from questions 8, 9, 10, and 11 of the student questionnaire.

Occupational Plans and Activities information is taken from responses to questionnaire items 12, 14, 15, and 16.

Educational Plans and Activities information is taken from responses to questionnaire items 18, 20, 21, and 22.

Student Perceptions of Growth information is taken from responses to questionnaire items 23 and 24.

Student Growth Areas are described on the questionnaire as follows:

Intellectual Growth: Your ability to understand and use concepts and principles from several broad areas of learning.

Social Growth: Your understanding of other people and their views; your experience in relating to others.

Aesthetic and Cultural Growth: Your awareness and appreciation of the literature, music, art, and drama of your own culture and of others.

Educational Growth: Your understanding of a particular field of knowledge; your preparation for further education.

Vocational and Professional Growth: Your preparation for employment in a particular vocational or professional area.

Personal Growth: Your development of attitudes, values, beliefs, and a particular philosophy of life; your understanding and acceptance of yourself as a person; your ability to be realistic and adaptable and to make decisions about your own future.

Data Source: Generated in the Student Outcomes Module of the NICHES Coating and Data Management System.

Questionnaire administration should take place no later than the degree or certificate award date for the term and no earlier than 60 days before the award date. Ideally, responses would be obtained in the month before program completion.

2. Survey Population

The population surveyed should include all program completers as described on the page facing Format F.1. It is recognized that some institutions will consider it desirable to survey a sample of program completers rather than all of them. A particular sampling procedure is not recommended here, but the student program orientation of the IEP outcomes study mandates that the sampling procedure adopted take account of the different numbers of completers in the various programs and degree types. In any event, if the entire population of completers is not included in the survey, the institution should keep careful documentation of the sampling procedure used. This is important so that differences in questionnaire administration can be identified and accounted for at a later time if the institution wishes to undertake trend analyses of student outcomes. It is important also that such differences be identifiable when one institution exchanges outcome information with another.

3. Method of Administration

The method of administration of the questionnaire must be an institutional decision. In general, the possible methods are of two types: mailing or direct handout.

A mailed questionnaire, even with a follow-up, probably will yield a lower response rate than a handout, perhaps because of its more impersonal nature. In addition, there are added expenses in the form of postage costs. If the mailing method must be used, the following procedures are recommended.

- (1) If the institution has the capability, a preprinted label containing the student's name and student I.D. number should be attached to the questionnaire. This will allow monitoring of responses for follow-up and also ensure that questionnaire responses carry the same I.D. number as other student files at the institution. If the label contains the student's local address as well, it also may be used as a mailing label in an envelope with an address window.
- (2) Since the questionnaire is designed with one blank side, it also can be utilized as a "return mailer." That is, the institution can pre-label the blank side with the address to which the questionnaire is to be returned and add the needed postage, rather than enclosing a return envelope.
- (3) At least one follow-up of nonrespondents should be conducted approximately two weeks after the initial mailing. A postcard reminder probably is suitable for this purpose. If there is concern about respondents misplacing the initial questionnaire, however, then a second questionnaire and return envelope should be sent.

Handing out the questionnaire is the preferred method, but the circumstances under which the method is applied will vary considerably. In some institutions, a classroom handout and collection

will be feasible and will likely yield a very good rate of response. Other institutions will prefer to make use of the counseling or placement office, the academic departments, the degree-registration section of the registrar's office, or some other central location. Whatever the circumstances of questionnaire distribution, two cautions should be borne in mind. (1) Care should be taken that the use of a particular distribution site does not bias the response. If the placement office, for example, is the only location where the questionnaire is available, the respondents will consist only of those who are seeking jobs. (2) The time of administration of the questionnaire may be more important than the response rate in determining the amount of information that is useful to the institution. It may be convenient, for example, to have the student complete the questionnaire at the time of degree registration; in addition, such a procedure would be likely to capture a very high percentage of program completers. If, however, degree registration takes place very early in the term (say January or February for a May award date), many respondents will be unable to provide information on their plans following program completion.

Again, depending on the handout method employed and on institutional capability, it may be convenient to use a preprinted label for monitoring questionnaire returns.

4. Cover Letter

The use of an institutional cover letter attached to the questionnaire is strongly recommended. The cover of the questionnaire itself contains a note to the student briefly explaining the purpose of the study. Because of its standard form, however, there is nothing that links the questionnaire directly to the institution. A cover letter will serve this purpose, will establish the importance of the response for the particular school, and probably will produce a better response rate. The cover letter can serve also to introduce any additional questions the institution may wish to include in the survey, thus making the whole process seem less remote to the student.

5. Follow-Up

The need for a follow-up of nonrespondents will depend on the method of administration and on the rate of response that is important to the institution. As indicated above, if the questionnaire is mailed, at least one follow-up--probably in postcard form--is recommended. Of course, this procedure can be used also if the questionnaire is handed out to be returned later. Other procedures include telephone follow-up, classroom and campus newspaper announcements, contacts through departmental advisors and faculty members, and the like.

B. Questionnaire Data Processing: The following guidelines are intended to assist in monitoring questionnaire returns and preparing them for input to the Student Outcomes Module software.

1. Monitoring Responses

It is recommended that questionnaire monitoring and data processing take place in a central institutional location.

Returned questionnaires may be collected in several different offices, such as the instructional departments, but a single office should have responsibility for identifying those who have responded. In some cases this can be done by a computer check against the file of students registered for program completion.

In others, manual comparison will need to be made against a master list. The monitoring process can be carried out more easily if returned questionnaires are stored in order according to the student I.D. number. (This ordering also will facilitate the quick location of responses that are rejected by the editing software.)

If the percentage of nonrespondents is large, the institution will want to know something about who they are; they may, for example, constitute homogeneous groupings that result in severe underrepresentation of some student programs. Thus it is important to keep careful records of those who respond and those who do not, even in those cases where a follow-up of nonrespondents is impossible.

2: Hand Checking

Before turning the questionnaires over for keypunching, it would be good to check some of the responses by hand. If a large number of oddities occur in the responses as a whole (such as blank sections, extraneous writing, and other inattention to instructions), it is likely that some of them will appear in the process of this visual check.

Further checking and culling of the responses should make it possible to give complete instructions to the keypuncher (concerning what to do with the "oddities," for example). This, in turn, may save keypunch time and result in an improved data set.

3. Keypunching

The student outcomes questionnaire is designed in such a way that no additional coding is needed prior to keypunching the information.* Thus, once hand checking is completed, the questionnaire responses are ready to be put in machine-readable form for input to the computer software module. The outcomes software will edit the questionnaire data and produce the information needed for IEP data format F.2. In addition, it creates a raw data file, containing all questionnaire information for each student, for later analysis. A full description of the Student Outcomes Module software is included in the Student Outcomes Module Reference Manual (Technical Report No. 61) and the NCHEMS Costing and Data Management System--Sample Reports (Technical Report No. 56).

*The bracketed number following each item number on the questionnaire indicates the keypunch card column. Note that four record cards are needed for the questionnaire information: one for the respondent's name (item 1), two for the address (item 2), and one for the response data (items 4 through 25). Each card contains a 7-digit record identifier (explained in the Student Outcomes Module documentation) and a 10-digit (maximum) student identifier taken from item 3. The questionnaire information then is punched beginning in column 18 on each card (see items 1, 2, and 4).

4. Examination of Edit Reports

The Student Outcomes Module software will produce an edit report listing all rejected item responses according to the identification number of the respondent. (An example of a rejected response would be the use of an occupational code that does not appear on the list on the questionnaire.) These rejected item responses will be considered blanks (that is, no response) in the later computations unless they are changed. Before proceeding, then, the institutional user should examine the edit report to determine whether there are any rejected item responses that he or she may want to change. (For example, an illegal occupational code could be changed to a 999--"Other"--and the response included in the computations. In addition, this examination will reveal a situation in which a particular respondent provided a large number of illegal responses, in which case the user may want to delete the entire set of answers for that respondent.

The procedures and guidelines discussed in the paragraphs above constitute the recommended approach to student questionnaire administration and handling for the IEP outcomes study. It must be stressed, however, that these procedures are heavily dependent on the institution's resources, its commitment to the study, its perceptions of the importance of the information, and the kinds of decisions for which that information will be used. Some institutions will be severely limited in the amount of staff time and money they can devote to the study. Others may be able to spend substantial effort in achieving high response rates and in analyzing and using the data. At both extremes, it is

felt that the information resulting from use of the student outcomes questionnaire represents a significant increase in the institution's student data base and potential understanding of its instructional program outcomes.

III

ANALYSES AND USES OF IEP OUTCOMES DATA

As it was indicated in the first section, this manual is not an analysis document. Rather it is intended, as part of IEP, to support the creation of a data base on which outcomes analysis can be conducted. Much of this analysis must originate with the institution since it is the institution that will be in the best position to identify questions of interest. It is hoped that the very process of collecting and examining this outcomes information--in a way that may not have been done before--will help in suggesting analyses.

Centering as it does on student programs rather than departments or disciplines per se, the information resulting from these procedures may provide an additional planning and management perspective. It can be a vital link in examining what kinds of students choose particular programs (and why) and what kinds of later "success" measures are associated with them. These questions suggest the possibility of surveys of entering students (to learn more about their demographic characteristics, their attitudes, and their plans), surveys of program noncompleters (to learn why they left the institution and what they have done in the time since leaving), and follow-up surveys of graduates (to learn how their educational and occupational plans are actually carried out). Even without these additions, however, this data base permits examination of student outcomes similarities and differences among student programs within the institution and eventually among student programs between institutions. At the very least then, the institution will have a comparable set of

information about its student programs. Beyond that it may have some valuable clues about areas needing attention and areas that may serve as program "models."

As may be expected, NCHEMS is not unconcerned with the direction and quality of the institutional analysis that is undertaken with IEP outcomes data. In the course of the broad implementation effort, NCHEMS staff will work closely with selected institutions in implementing this set of outcomes procedures and in analyzing the resulting data--both as a cohesive set of outcomes information and in conjunction with the other kinds of IEP information. To the extent that these efforts yield exemplary approaches for other schools, and to the extent that participating institutions are willing, their results will be shared with other institutions implementing IEP.

In addition, considerable NCHEMS effort is being devoted to analyzing results of the 1974 pilot test of IEP, on which the current IEP procedures are substantially based. This staff effort, based on actual institutional data, will provide added insight into the kinds of questions institutions may wish to address in the course of their own analyses.

Finally, NCHEMS has under way a comprehensive examination of institutional uses of the IEP data set. Two approaches are being developed: (1) examination of a single kind of information (for example, the outcomes data set) across many student programs and (2) examination of comprehensive information

(for example, student, resource, cost, and outcomes data) for a single student program. The two approaches suggest different--perhaps complementary--applications of IEP data. These applications will be further enhanced by a parallel NCHEMS effort devoted to examination of comparative analyses and uses of multi-institutional IEP data sets, and the development of an exchange mechanism whereby institutions may share their IEP data with others.

Clearly then, this document is far from the last word on outcomes even in the context of IEP. While much remains to be done, however, implementation of these procedures should provide substantial benefit to the institution in terms of improved understanding of its student programs and their results.

APPENDIX A

THE NCHEMS OUTCOMES PROJECT

The NCHEMS Outcomes Project

As stated in the text, most of the measures included in this manual were derived from or influenced by the Outcomes of Postsecondary Education Project at NCHEMS. Three major milestones in the Outcomes project were particularly important in this context. The first of these was the staff's compilation of the Inventory of Higher Education Outcome Variables and Measures (in Micek and Wallhaus, 1973). This inventory lists and describes a wide array of higher education outcomes and suggests potential measures or proxy measures for them; the section comprising student growth and development outcome variables is especially relevant to the IEP Outcomes Study. The second milestone was the Higher Education Outcome Measures Identification Study (see Micek and Arney, 1975), in which some 300 educational decision makers at both the institutional and state level reacted to a list of 112 outcome measures. In this study the respondents rated each proposed measure in terms of their perceived need for information about that outcome in fulfilling their professional responsibilities. The results of these ratings were used to establish an initial set of high priority measures for potential inclusion in IEP. The third important milestone was development of the Outcome Measures and Procedures Manual: Volume I (Micek, Service, and Lee, 1975). This manual, which will be the subject of a pilot test during 1975, presents suggested procedures for obtaining information related to the highest priority outcome measures from the Outcome Measures Identification Study. Some of the procedures in that document were used in the preparation of the present IEP Outcomes Study Procedures.

Continuing efforts in the Outcomes project include -

- Development of a conceptual framework for describing and understanding the full range of outcomes of postsecondary education.
- Development of useful measures of outcomes of the institution's research and public service activities and programs.
- Examination of potential uses of existing outcome measures at the state level.
- Definition and development of outcome measures having particular utility for noncollegiate and nontraditional institutions.

References:

Micek, Sidney S. and William Ray Arney. The Higher Education Outcome Measures Identification Study: A Descriptive Summary. Boulder, Colo.: Western Interstate Commission for Higher Education, 1975.

Micek, Sidney S., Allan L. Service, and Yong S. Lee. Outcome Measures and Procedures Manual: Volume I (Field Review Edition). Technical Report No. 70. Boulder, Colo.: Western Interstate Commission for Higher Education, 1975.

Micek, Sidney S. and Robert A. Wallhaus. An Introduction to the Identification and Uses of Higher Education Outcome Information. Technical Report No. 40. Boulder, Colo.: Western Interstate Commission for Higher Education, 1973.

APPENDIX B

THE STUDENT OUTCOMES QUESTIONNAIRE
FOR PROGRAM COMPLETERS

The Student Outcomes Questionnaire for Program Completers

Several steps were important in the development of the Student Outcomes Questionnaire for Program Completers. First, a sample student questionnaire and procedures for its administration were included in the 1974 pilot test version of IEP. Next, a small number of 1974 pilot test schools were selected to give particular attention to the use of the student questionnaire; these included the Community College of Philadelphia, Normandale Community College, Seattle Community College, West Virginia Wesleyan College, and the Universities of Evansville, Notre Dame, and Rhode Island. Each school used the basic items from the IEP sample student questionnaire. Some added items of particular interest to their institution and explored alternative wordings of some items. Different methods of administration also were examined.*

The results of the pilot test, along with additional development by the staff and recommendations from the task force of the NCHEMS Outcomes project, substantially affected the present version of the questionnaire.

- The items concerning immediate occupational and educational plans were clarified.
- Items were added concerning long-run occupational and educational plans.

*Continuing analysis of the pilot test experience is being carried out in the NCHEMS Outcomes project.

- The items dealing with educational progress were combined into broader categories of student growth and a question was added concerning the importance of that progress to the respondent.
- The questionnaire was constructed so that it was unnecessary for the institution to compile from its records any information about the respondent.
- A list of occupations and educational programs was provided to permit pre-coded responses to most of the items.
- Three demographic items were added: birth date, sex, and civil rights category.*

*The civil rights category headings and definitions used in the questionnaire and this manual are adopted from recommendations made to the Ad Hoc Committee on Racial and Ethnic Definitions of the Federal Interagency Committee on Education (FICE). At the time of the preparation of this manual, the recommendations had not yet been submitted for endorsement by the full FICE committee. What is presented here must therefore be regarded as tentative; it is, nonetheless, the most timely and substantive contribution to a revision of civil rights categorizations.

American Indian or Alaska Native: A person having origins in any of the original peoples of North America.

Asian or Pacific Islander: A person having origins in any of the original peoples of the Far East, Southeast Asia, or the Pacific Islands. This area includes, for example, China, Japan, Korea, the Philippine Islands, and Samoa.

Black/Negro: A person having origins in any of the original peoples of sub-Saharan Africa.

Hispanic: A person of Mexican, Puerto Rican, Cuban, Central or South American, or other Spanish culture or origin, regardless of race.

White, other than Hispanic: A person having origins in any of the original peoples of Europe, North Africa, the Middle East, or the Indian subcontinent.

The revised questionnaire was informally tested by staff members from NCHEMS and the office of the Assistant Vice-Chancellor for Academic Affairs at the University of Colorado.

INSTITUTIONS WISHING TO OBTAIN COPIES OF THE STUDENT OUTCOMES QUESTIONNAIRE FOR PROGRAM COMPLETERS MAY DO SO BY CONTACTING:

The Publications Unit
Western Interstate Commission for
Higher Education
P. O. Drawer P
Boulder, Colorado 80302

APPENDIX C

OUTCOMES DATA FORMATS WITH SAMPLE DATA

STUDENT OUTCOMES INFORMATION:
PROGRAM ENROLLMENTS AND COMPLETIONS

Code	Student Program Name	Degree Type	Headcount Enrollment (Fall Term)	Program Completers (Fiscal Year)	Exiting Students (Noncompleters)		
					Total	In Good Standing	Student Status at Exit
					Acad. Drop/ Suspension	Other Drop/ Suspension	Unknown
0509	Marketing	B.B.A. M.A.	61 12	15 4	4	3	1
1501	English	B.A. M.A.	43 10	10 7	6	5	2
	Institutional Total	B.A./B.S. M.A./M.S.	3,338 661	387 207	287 35	190 .28	63 7
45							

STUDENT OUTCOMES INFORMATION
OUTCOMES QUESTIONNAIRE FOR PROGRAM COMPLETERS

-Program Information Summary-

Program Name	NCHEUS University--TOTAL	Degree Type	B.A./B.S.	Program Code	N/A
Number of Program Completers	387	Questionnaire Administration Date	May 1975		
Number of Questionnaires Distributed	387				
Number of Respondents	324				
		Civil Rights Category			
Men	153	American Indian or Alaska Native	1		
Women	168	Asian or Pacific Islander	-		
Not Indicated	3	Black/Negro	12		
		Hispanic	-		
		White, Other Than Hispanic	297		
		Not Indicated	14		
I. Program Completion Measures			II. Occupational Plans and Activities		
Number of Transfers (N*=318)	98	Number Not Intending to Seek Job	27		
Median Months to Program Completion (N*=320)	45	Number Intending to Seek Job in Next 6 Months	37		
Median Terms Enrolled (N*=318)		Number Now Seeking Job	78		
Full-Time	12 qtrs.	Number Who Have Secured Job	182		
Part-Time	1	Median Annual Salary (N*=173)	\$ 8,700		
Median Cumulative G.P.A. (N*=297)	2.6/4.0	Job/Program Relation:	None	26	
		Some	Some	57	
		Direct	Direct	83	
		Not Indicated	Not Indicated	16	
Job Considered:	Temporary			33	
		Possible Career Potential	52		
		Definite Career Potential	66		
		Other	15		
		Not Indicated	16		

*Wherever it is used in this summary, N indicates the number of individuals who responded to that particular item on the questionnaire.

-Program Information Summary - (Continued)

III. Educational Plans and Activities

Number Not Intending to Apply Within One Year for a Further Degree 203

Number Intending to Apply Within One Year 71

50
Have Already Applied

Number Who Have Been Admitted. 18

lot Indicated Number Waiting Decision = _____

11

200 JOURNAL OF CLIMATE

卷之三

Competitors of growth

Conceptions of the institution's contribution to growth

Institution's Contribution

Frequency Count
Area

	None	Little	Moderate	Much

Actual

9. 61 128 8

CULTURE/CULTURAL

Professional

卷之三

Student Perceptions of Growth

"student perceptions of the institution's contribution to progress and the importance of that progress in six areas of potential growth."

Growth Area	Institution's Contribution to Progress			Importance of That Progress			Mean*					
	Frequency Count			Frequency Count								
	None	Little	Moderate	Much	Very Much	None	Little	Moderate	Much	Very Much		
A. Intellectual	6	14	148	120	26	3.45	19	28	151	100	16	3.21
B. Social	9	61	128	85	28	3.20	16	72	103	90	30	3.15
C. Aesthetic/Cultural	9	15	105	129	52	3.65	16	28	124	105	37	3.38
D. Educational	1	14	84	145	71	3.86	6	15	95	128	76	3.27
E. Vocational/Professional	16	31	79	116	72	3.63	9	13	75	129	88	3.87
F. Personal	14	41	122	92	34	3.27	10	27	103	115	48	3.54

"The mean for each growth area is based on values of 1, 2, 3, 4, and 5 assigned to the responses "None," "Little," "Moderate," "Much," and "Very Much," respectively.

STUDENT OUTCOMES INFORMATION
OUTCOMES QUESTIONNAIRE FOR PROGRAM COMPLETERS

-Program Information Summary-

Program Name	<u>Marketing</u>	Degree Type	<u>B.B.A.</u>	Program Code	<u>0509</u>
Number of Program Completers	<u>15</u>	Questionnaire Administration Date <u>May 1975</u>			
Number of Questionnaires Distributed	<u>15</u>				
Number of Respondents	<u>15</u>				
<u>Civil Rights Category</u>					
Men	<u>13</u>	American Indian or Alaska Native	<u>-</u>	Asian or Pacific Islander	<u>-</u>
Women	<u>2</u>	Black/Negro	<u>1</u>	Hispanic	<u>-</u>
Not Indicated	<u>-</u>	White, Other Than Hispanic	<u>14</u>	Not Indicated	<u>-</u>
<u>II. Occupational Plans and Activities</u>					
<u>I. Program Completion Measures</u>					
Number of Transfers (N*=15)	<u>2</u>	Number Not Intending to Seek Job	<u>4</u>	Number Intending to Seek Job in Next 6 Months	<u>-</u>
Median Months to Program Completion (N*=15)	<u>45</u>	Number Now Seeking Job	<u>2</u>	Number Who Have Secured Job	<u>9</u>
Median Terms Enrolled (N*=15)		Median Annual Salary (N*=9)	<u>\$ 9,400</u>	Job/Program Relation:	
Full-Time	<u>12 qtrs.</u>	None		Some	<u>-</u>
Part-Time	<u>1</u>	Direct		Direct	<u>7</u>
Median Cumulative G.P.A. (N*=14)	<u>2.8/4.0</u>	Not Indicated		Not Indicated	<u>-</u>
Job Considered:		Possible Career Potential	<u>3</u>	Definite Career Potential	<u>6</u>
Other		Not Indicated	<u>-</u>		

*Wherever it is used in this summary, N indicates the number of individuals who responded to that particular item on the questionnaire.

STUDENT OUTCOMES INFORMATION:
OUTCOMES QUESTIONNAIRE FOR PROGRAM COMPLETERS

-Program Information Summary-
(Continued)

III. Educational Plans and Activities

	Highest Degree Aspirations			
Number Not Intending to Apply Within One Year for a Further Degree	9	Certificate	-	-
Number Intending to Apply Within One Year	1	Diploma	-	-
Number Who Have Already Applied	5	Associate Degree	-	-
Number Who Have Been Admitted	4	Bachelor's Degree	7	-
Number Waiting Decision	1	Master's Degree	5	-
Not Indicated	-	Professional Degree	-	-
		Doctorate	3	-
		Other	-	-
		Undecided	-	-
		Not Indicated	-	-

IV. Student Perceptions of Growth

Student perceptions of the institution's contribution to progress and the importance of that progress in six areas of potential growth.

Growth Area	Institution's Contribution to Progress				Importance of That Progress							
	None	Little	Moderate	Much	Very Much	Mean*	None	Little	Moderate	Much	Very Much	Mean*
A. Intellectual	-	2	4	6	3	3.67	1	3	5	4	2	3.20
B. Social	-	3	8	2	2	3.20	-	2	9	3	1	3.20
C. Aesthetic/Cultural	1	3	5	3	3	3.27	2	2	8	2	1	2.87
D. Educational	-	1	5	7	2	3.67	-	-	4	8	3	3.93
E. Vocational/Professional	-	-	4	6	5	4.07	-	-	2	6	7	4.33
F. Personal	-	2	7	4	2	3.40	2	6	6	5	2	3.47

*The mean for each growth area is based on values of 1, 2, 3, 4, and 5 assigned to the responses "None," "Little," "Moderate," "Much," and "Very Much," respectively.

STUDENT OUTCOMES INFORMATION

OUTCOMES QUESTIONNAIRE FOR PROGRAM COMPLETERS

-Program Information Summary-

Program Name	<u>English</u>	Degree Type	<u>B.A.</u>	Program Code	<u>1501</u>
Number of Program Completers	<u>10</u>	Questionnaire Administration Date	<u>May 1975</u>		
Number of Questionnaires Distributed	<u>10</u>				
Number of Respondents	<u>8</u>				
<u>Civil Rights Category</u>					
Men	<u>2</u>	American Indian or Alaska Native	<u>-</u>		
Women	<u>6</u>	Asian or Pacific Islander	<u>-</u>		
Not Indicated	<u>-</u>	Black/Negro	<u>-</u>		
		Hispanic	<u>-</u>		
		White, Other Than Hispanic	<u>8</u>		
		Not Indicated	<u>-</u>		
<u>II. Occupational Plans and Activities</u>					
Number of Transfers (N*= 8)	<u>1</u>	Number Not Intending to Seek Job	<u>-</u>		
Median Months to Program Completion (N*= 8)	<u>45</u>	Number Intending to Seek Job in Next 6 Months	<u>-</u>		
Median Terms Enrolled (N*= 8)	<u>-</u>	Number Now Seeking Job	<u>-</u>		
Full-Time	<u>14 qtrs.</u>	Number Who Have Secured Job	<u>-</u>		
Part-Time	<u>-</u>	Median Annual Salary (N*= 2)	<u>\$ 6,800</u>		
Median Cumulative G.P.A. (N*= 8)	<u>2.5/4.0</u>	Job/Program Relation:	<u>None</u>		
		Some	<u>-</u>		
		Direct	<u>-</u>		
		Not Indicated	<u>-</u>		
Job Considered:	<u>Temporary</u>		<u>2</u>		
Possible Career Potential	<u>-</u>		<u>-</u>		
Definite Career Potential	<u>-</u>		<u>-</u>		
Other	<u>-</u>		<u>-</u>		
Not Indicated	<u>-</u>		<u>-</u>		

*Wherever it is used in this summary, N indicates the number of individuals who responded to that particular item on the questionnaire.

STUDENT OUTCOMES INFORMATION:

Program Information Summary— (Continued)

III. Educational Plans and Activities

Number Not Intending to Apply Within One Year for a Further Degree

Number Intending to Apply Within One
Number Who Have Already Applied

Number Who Have Been Admitted

המגילה מילוי יומן ; רשות

Number Awaiting Decision
Not Indicated

Highest Degree Aspirations

One Year-for-a Further Degree 3
Number Intending to Apply Within One Year 1

Number Who Have Already Applied. 4
Number Who Have Been Admitted. 2

Number Awaiting Decision _____
Number Who Have Been Autimized _____

Not Indicated _____
_____ 1

Student Percentages of Growth

IV. Student Perceptions of Growth

Student perceptions of the institution's contribution to progress and the importance of that progress in six areas of potential growth.

Growth Area	Institution's Contribution to Progress				Importance of That Progress				
	Frequency Count			Mean*	Frequency Count				Mean*
	None	Little	Moderate		Much	Very Much	None	Little	
A. Intellectual	-	1	2	4	1	3.63	-	3	2
B. Social	1	1	2	3	1	3.25	-	3	2
C. Aesthetic/Cultural	-	2	2	3	1	3.38	1	1	3
D. Educational	-	1	2	3	2	3.75	-	1	4
E. Vocational/Professional	1	2	3	2	-	2.75	-	3	2
F. Personal	-	2	2	3	1	3.38	-	1	4

*The mean for each growth area is based on values of 1, 2, 3, 4, and 5 assigned to the responses "None," "little," "Moderate," "Much," and "Very Much" respectively.

STUDENT OUTCOMES INFORMATION

OUTCOMES QUESTIONNAIRE FOR PROGRAM COMPLETERS
-Program Information Summary-

Program Name	English	Degree Type	M.A.	Program Code	1501
Number of Program Completers	7	Questionnaire Administration Date	May 1975		
Number of Questionnaires Distributed	7				
Number of Respondents	5				
<u>Civil Rights Category</u>					
Men	1	American Indian or Alaska Native	-		
Women	4	Asian or Pacific Islander	-		
Not Indicated	-	Black/Negro	-		
		Hispanic	-		
		White, Other Than Hispanic	5		
		Not Indicated	-		
<u>I. Program Completion Measures</u>					
Number of Transfers (N*= 5)	1	Number Not Intending to Seek Job	2		
Median Months to Program Completion (N*= 5)	24	Number Intending to Seek Job in Next 6 Months	2		
Median Terms Enrolled (N*= 5)		Number Now Seeking Job	1		
Full-Time	4 attns.	Number Who Have Secured Job	\$ 8,500		
Part-Time	6	Median Annual Salary (N*=1)			
Median Cumulative G.P.A. (N*= 4)	3.2/4.0	Job/Program Relation: None	-		
		Some	-		
		Direct	1		
		Not Indicated	-		
<u>II. Occupational Plans and Activities</u>					
Number Not Considering Job	-	Job Considered: Temporary	-		
Possible Career Potential	-	Definite Career Potential	1		
Definite Career Potential	1	Other	-		
Not Indicated	-				

*Wherever it is used in this summary, N indicates the number of individuals who responded to that particular item on the questionnaire.

(Continued)

III. Educational Plans and Activities

Number Not Intending to Apply Within One Year for a Further Degree 2
 Number Intending to Apply Within One Year 1
 Number Who Have Already Applied 2
 Number Who Have Been Admitted 2
 Number Awaiting Decision -
 Not Indicated -

Highest Degree Aspirations

Certificate	<u>-</u>
Diploma	<u>-</u>
Associate Degree	<u>-</u>
Bachelor's Degree	<u>-</u>
Master's Degree	<u>2</u>
Professional Degree	<u>-</u>
Doctorate	<u>3</u>
Other	<u>-</u>
Undecided	<u>-</u>
Not Indicated	<u>-</u>

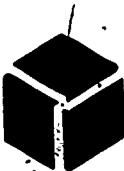
IV. Student Perceptions of Growth

Student perceptions of the institution's contribution to progress and the importance of that progress in six areas of potential growth.

Growth Area	Institution's Contribution to Progress			Importance of That Progress				Mean*
	None	Little	Moderate	Much	Very Much	Mean*	Frequency Count	
A. Intellectual	<u>-</u>	<u>1</u>	<u>3</u>	<u>1</u>	<u>-</u>	<u>3.00</u>	<u>-</u>	<u>3.40</u>
B. Social	<u>1</u>	<u>2</u>	<u>1</u>	<u>1</u>	<u>-</u>	<u>2.40</u>	<u>1</u>	<u>2.20</u>
C. Aesthetic/Cultural	<u>-</u>	<u>1</u>	<u>1</u>	<u>2</u>	<u>1</u>	<u>3.60</u>	<u>-</u>	<u>4.20</u>
D. Educational	<u>-</u>	<u>1</u>	<u>1</u>	<u>2</u>	<u>1</u>	<u>3.60</u>	<u>-</u>	<u>3.80</u>
E. Vocational/Professional	<u>1</u>	<u>1</u>	<u>2</u>	<u>1</u>	<u>-</u>	<u>2.60</u>	<u>2</u>	<u>2</u>
F. Personal	<u>-</u>	<u>2</u>	<u>2</u>	<u>2</u>	<u>-</u>	<u>2.80</u>	<u>-</u>	<u>2.60</u>

*The mean for each growth area is based on values of 1, 2, 3, 4, and 5 assigned to the responses "None," "Little," "Moderate," "Much," and "Very Much," respectively.

National Center for Higher Education Management Systems



STUDENT OUTCOMES QUESTIONNAIRE FOR PROGRAM COMPLETERS

TO THE STUDENT

This questionnaire is part of a study your school is undertaking in order to understand better some of the most important outcomes of postsecondary education — its effects on students. Your responses to the questions contained here will provide a broad picture of your educational and occupational goals and plans. This information in turn will help your institution to provide the best possible educational program for its students.

The questionnaire is brief, but your response to it is very important. Your answers will be tabulated along with those of other students. All the information you furnish will be treated confidentially. Thank you for your help, and best wishes.

**STUDENT OUTCOMES QUESTIONNAIRE
FOR PROGRAM COMPLETERS**

1. 1151 Name (Please Print)	First _____	Middle Marden _____	Date Mo. / Year _____
2. 1151 Home Street Address (Please Print)	_____		
1151 City _____	1151 State _____	1151 Zip Code _____	_____
3. 181 Student I.D. Number _____	6. 1231 Civil Rights Category (PLEASE CHECK ONE):		
4. 181 Date of Birth [] Mo. / Yr. _____	<input type="checkbox"/> (1) American Indian or Alaska Native <input type="checkbox"/> (2) Asian or Pacific Islander <input type="checkbox"/> (3) Black/Negro <input type="checkbox"/> (4) Hispanic <input type="checkbox"/> (5) White, Other than Hispanic		
5. 1221 Sex: (1) Female (2) Male _____	8. 1281 Please give the date when you first entered this school to begin work on the above degree or certificate. Mo. / Year _____		
The following questions concern your work on the degree or certificate you are now receiving.			
7.A. 1241 Which of the following types of degree or certificate are you receiving? (PLEASE CHECK ONE)			
<input type="checkbox"/> (1) Certificate <input type="checkbox"/> (2) Diploma (Other than those listed below) <input type="checkbox"/> (3) Associate degree <input type="checkbox"/> (4) Bachelor's degree <input type="checkbox"/> (5) Master's degree <input type="checkbox"/> (6) Professional degree (Includes any dentistry, medicine, optometry, osteopathy, podiatry, veterinary medicine, law, and theology) <input type="checkbox"/> (7) Doctor's degree (e.g., Ph.D., Ed.D., D.B.A.) <input type="checkbox"/> (8) Other (Please specify) _____			
B. 1251 From the list that appears on the reverse, please select the entry that most closely corresponds to your field of study and write its 3-digit code number in the space below.			
Field of study: [] _____			
The following questions concern your current and long-run occupational plans and activities.			
12. 1421 Are you currently working at or have you secured a full-time job (35 hours or more a week) in which you plan to work once you complete your current degree or certificate program here? (PLEASE CHECK ONE)			
15. 1471 What is the gross salary or wage you (will) receive on this job? (\$ per year) _____			

- (1) Yes (GO to question 13)
 (2) No, but I am looking for one (SKIP to question 17)
 (3) No, but I intend to look for one within the next 6 months
 (4) No, and I do not intend to look for one within the next 6 months (SKIP to question 17)

13. 161 From the list that appears on the reverse, please select the entry that most closely corresponds to this job and write its 3-digit code in the space below.
 Occupation: _____

14. 161 Which of the following statements best describes how you regard this job at this time? (PLEASE CHECK ONE)
- (1) Temporary job until a better one can be found
 (2) Temporary job while waiting to report to a new job
 (3) Temporary job to earn money to do something else (e.g., travel, school, have free time)
 (4) Job with possible career potential
 (5) Job with definite career potential
 (6) Other (Please specify) _____

The following questions concern your current and long-run educational plans and activities.

18. 161 Have you applied for admission to one or more educational programs (either here or at another school) which would result in your earning another degree or certificate? (PLEASE CHECK ONE)

- (1) Yes, I have applied (GO to question 19)
 (2) No, but I intend to apply within the next year (SKIP to question 22)
 (3) No, and I do not intend to apply within the next year (SKIP to question 22)

- 19.A. 1591 What kind of degree or certificate would result from the program(s) to which you have applied? (PLEASE CHECK ONE)

- (1) Certificate
 (2) Diploma (Other than those listed below)
 (3) Associate degree
 (4) Bachelor's degree
 (5) Master's degree
 (6) Professional degree (Includes only dentistry, medicine, optometry, osteopathy, podiatry, veterinary medicine, law, and theology)
 (7) Doctor's degree (e.g., Ph.D., Ed.D., D.B.A.)
 (8) Other (Please specify) _____

- E. 1591 From the list that appears on the reverse, please select the entry that most closely corresponds to the field of study you plan to pursue and write its 3-digit code number in the space below:
 Field of study: _____

\$ (1) per hour
 (2) (3) per hour
 (4) Don't know yet
 (Check)

16. 1531 To what extent is this job related to the field of study for the degree or certificate you are receiving? (PLEASE CHECK ONE)

- (1) Not related
 (2) Somewhat related
 (3) Directly related

17. 1511 What kind of career do you expect to have in the long run? From the list that appears on the reverse, please select the entry that most closely corresponds to your long-run career expectations and write its 3-digit code in the space below.

Occupation: _____

20. 1621 Have you been admitted to any of the programs to which you have applied? (PLEASE CHECK ONE)
- (1) Yes (SKIP to question 22)
 (2) No (GO to question 21)
21. 1631 Have you received a decision from all of the programs to which you applied? (PLEASE CHECK ONE)
- (1) Yes
 (2) No

- 22.A. 1641 Regardless of whether you are going on to another educational program at this time, what is the highest degree or certificate you eventually intend to complete? (PLEASE CHECK ONE)
- (1) Certificate
 (2) Diploma (Other than those listed below)
 (3) Associate degree
 (4) Bachelor's degree
 (5) Master's degree
 (6) Professional degree (Includes only dentistry, medicine, optometry, osteopathy, podiatry, veterinary medicine, law and theology)
 (7) Doctor's degree (e.g., Ph.D., Ed.D., D.B.A.)
 (8) Other (Please specify) _____
 (9) Undecided

- B. 1651 From the list that appears on the reverse, please select the entry that most closely corresponds to the field of study for the degree above and write its 3-digit code number in the space below.
 Field of study: _____

23. There are many reasons for pursuing education, some of which are listed below. In thinking over your educational experience, how much do you think

		No Progress (1)	Little Progress (2)	Moderate Progress (3)	Much Progress (4)	Very Much Progress (5)
1731 A.	<i>Intellectual Growth: Your ability to understand and use concepts and principles from several broad areas of learning</i>					
1731 B.	<i>Social Growth: Your understanding of other people and their views; your experience in relating to others.</i>					
1731 C.	<i>Aesthetic and Cultural Growth: Your awareness and appreciation of the literature, music, art, and drama of your own culture and of others.</i>					
1731 D.	<i>Educational Growth: Your understanding of a particular field of knowledge; your preparation for further education.</i>					
1731 E.	<i>Vocational and Professional Growth: Your preparation for employment in a particular vocational or professional area.</i>					
1731 F.	<i>Personal Growth: Your development of attitudes, values, beliefs, and a particular philosophy of life; your understanding and acceptance of yourself as a person; your ability to be realistic and adaptable and to make decisions about your own future.</i>					

24. How important is that progress to you? (Check the appropriate box to the right of each category.)

		Of No Importance (1)	Of Little Importance (2)	Of Moderate Importance (3)	Of Much Importance (4)	Of Very Much Importance (5)
1741 A.	<i>Intellectual Growth: Your ability to understand and use concepts and principles from several broad areas of learning.</i>					
1751 B.	<i>Social Growth: Your understanding of other people and their views; your experience in relating to others.</i>					
1751 C.	<i>Aesthetic and Cultural Growth: Your awareness and appreciation of the literature, music, art, and drama of your own culture and of others.</i>					
1751 D.	<i>Educational Growth: Your understanding of a particular field of knowledge; your preparation for further education.</i>					
1751 E.	<i>Vocational and Professional Growth: Your preparation for employment in a particular vocational or professional area.</i>					
1791 F.	<i>Personal Growth: Your development of attitudes, values, beliefs, and a particular philosophy of life; your understanding and acceptance of yourself as a person; your ability to be realistic and adaptable and to make decisions about your own future.</i>					

25. If so, do you have any other comments or suggestions you would like to make?

Thank you again for your help!

LIST OF OCCUPATIONS AND EDUCATIONAL PROGRAMS

If the appropriate program or occupation is not listed, please use the 999 code and write the program or occupation name in the space provided on the questionnaire.

030 AGRICULTURE AND NATURAL RESOURCES	210 COMMUNICATIONS	360 FOREIGN LANGUAGES	600 MATHEMATICS AND STATISTICS
031 Agriculture, general	211 Communications, general	390 HEALTH SERVICES	630 MILITARY SCIENCES
032 Natural resources, general	212 Advertising, information services, and public relations	391 Health services, general	660 PERSONAL SERVICES
033 Agricultural business and economics	213 Journalism (printed media)	392 Dental or medical assistant services	661 Barbering, cosmetology, and related services
034 Agricultural and farm management	214 Radio and television	393 Dental or medical laboratory technologies	662 Food-and-beverage services
035 Agronomy and horticulture	240 COMPUTER AND INFORMATION SCIENCES	394 Dental hygiene	663 Hotel and lodging services
036 Animal care, and poultry science	241 Computer and information sciences, general	395 Dentistry	664 Other personal services
037 Fish, game and wildlife management	242 Computer and peripheral equipment operations	396 Electrocardiograph and electroneurography technologies	690 PHYSICAL SCIENCES
038 Food science and technology	243 Computer programming	397 Hospital and health care administration	691 Physical sciences, general
039 Forestry, natural resource, and range management	244 Data processing	398 Inhalation therapy	692 Astronomy and astrophysics
041 Ornamental horticulture (floristry and nursery science)	245 Information sciences and systems	399 Medical records	693 Atmospheric sciences and meteorology
060 ARCHITECTURE AND ENVIRONMENTAL DESIGN	246 Systems analysis	401 Medicine	694 Chemistry, general
061 Architecture, general	27) EDUCATION	402 Mortuary science	695 Earth sciences, general
062 Environmental design, general	271 Education, general	403 Nursing	696 Geology
063 Architectural technology	272 Counseling and guidance	404 Optometry	697 Metallurgy
064 City, community, and regional planning	273 Educational administration	405 Osteopathic medicine	698 Geocartography
090 ASSEMBLY, INSTALLATION, MAINTENANCE, AND REPAIR	274 Educational research and development (including curriculum)	406 Pharmacy	699 Physics, general
091 Air conditioning, refrigeration, and heating equipment	275 Elementary education (including preschool)	407 Physical and occupational therapy	720 PSYCHOLOGY
092 Aircraft and related equipment	276 Secondary education (including junior high)	408 Podiatry	721 Psychology, general
093 Appliances	277 Higher and other postsecondary education	409 Public health and sanitation	722 Clinical psychology
094 Automotive equipment	278 Special education	410 Radiologic technologies (e.g., X-ray)	723 Experimental psychology
095 Business machines including computers and related equipment	300 ENGINEERING	411 Speech pathology and audiology	724 Psychometrics
096 Diesel equipment	301 Engineering, general	412 Veterinary medicine	725 PUBLIC AFFAIRS AND SERVICES
097 Electronics equipment (except radio and TV), heavy machinery and equipment	302 Aerospace, aeronautical, and astronautical engineering	420 HOME ECONOMICS AND HOMEMAKING	750 PUBLIC AFFAIRS AND SERVICES
098 Heavy machinery and equipment	303 Automotive engineering	421 Home economics and homemaking, general	751 Community services, general
099 Radio and TV equipment	304 Chemical engineering (includes petroleum refining)	422 Clothing and textiles	752 Fire protection
120 BIOLOGICAL SCIENCES	305 Civil, construction and transportation engineering	423 Consumer economics and home management	753 Law enforcement and corrections
121 Biology, general	306 Drafting and design engineering	424 Family relations and child development	754 Parks and recreation
122 Botany	307 Electrical, electronics, and communications engineering	425 Foods and nutrition (including dietetics)	755 Public administration
123 Ecology	308 Engineering support technologies	426 Home decoration and home equipment	756 Social work and helping services
124 Genetics	309 Environmental and sanitary engineering	450 INTERDISCIPLINARY STUDIES	760 SOCIAL SCIENCES
125 Zoology	310 Industrial and management engineering	490 LAW	781 Social science, general
150 BUILDING AND CONSTRUCTION TRADES	311 Mechanical engineering	510 LETTERS	782 Anthropology
180 BUSINESS MANAGEMENT, AND COMMERCE	312 Petroleum engineering	511 Classics	783 Archaeology
181 Business and commerce, general	313 Mining and mineral engineering	512 Comparative literature	784 Area studies
182 Accounting	314 Petroleum engineering (excludes petroleum refining)	513 Creative writing	785 Economics
183 Business management and administration	315 Engineering support technologies	514 English, general	786 Ethnic studies
184 Hotel and restaurant management	316 Environmental and sanitary engineering	515 English literature	787 Geography and demography
185 Labor and industrial relations	317 Industrial and management engineering	516 Linguistics (includes phonetics, semantics, and phonology)	788 History
186 Marketing and purchasing	318 Marketing and mineral engineering	517 Philosophy	789 International relations
187 Office management and operations	319 Petroleum engineering (excludes petroleum refining)	518 Religious studies (excludes theological professions)	791 Political science and government
188 Personnel management	320 FINE, APPLIED, AND PERFORMING ARTS	520 LIBRARY SCIENCE	792 Sociology
189 Recreation and tourism	321 Art history	521 Art history	810 THEOLOGY
191 Sales	322 Graphic arts (e.g., engraving, etching, lithography)	522 Music history, theory, and composition	998 UNDECIDED
192 Secretarial studies	323 Music history, theory, and composition	523 Performing arts (e.g., dance, drama, music)	999 OTHER (please write the name of the educational program or occupation in the space provided on the questionnaire)
193 Transportation and public utilities management	324 Photography and cinematography	524 Transportation and public utilities management	